REMARKS

This application has been carefully reviewed in light of the Office Action dated September 22, 2004. Claims 22 to 53 are pending in the application, of which Claims 22, 31, 38 and 47 are independent.

As an initial matter, Applicant thanks the Examiner for the indication that Claims 25 to 27, 29, 30, 32 to 34, 36, 37, 41 to 43, 45, 46, 48 to 50, 52 and 53 contain allowable subject matter and would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 22 to 24, 28, 31, 35, 38, 44, 47 and 51 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,812,111 (Fuji). Reconsideration and withdrawal of this rejection are respectfully requested.

The present invention concerns an image processing device in which density conversion tables are used during an image enlargement or reduction opperation. This allows for improved image quality during an enlargement or reduction of a processed image.

Turning to specific claim language, Claim 22 is directed to an image processing device for performing a conversion processing of image data. The image processing device includes an input means for inputting image data and an enlargement/reduction magnification setting means for setting an enlargement/reduction magnification of the image data input by said input means. A data converting means having a plurality of image data density conversion tables uses one selected density conversion table to convert said input image data to output data and table selecting means for selecting said density conversion table in accordance with the

enlargement/reduction magnification set by said enlargement/reduction magnification setting means.

In contrast, Fuji discloses an invention which relates to a method of displaying a portion of an image at first magnification level and a second portion of the image at a second magnification level, known as a bifocal display. In the bifocal, display, the portion to be displayed in detail in one image is displayed as an enlargement with peripheral portions of the image displayed as a reduction such that both the enlarged and reduced areas are displayed at the same instant within the same screen (See Column 2, Line 1 to Column 3, Line 29 of Fuji).

In the bifocal display disclosed by Fuji: a) images are displayed at various magnification levels; b) an enlarged/displayed image is selected according to network conditions and control purpose so as to display different detailed information according to the control purposes; and c) a display color change is executed at high speed.

More specifically, to achieve objectives a) and b) from above, the system disclosed by Fuji prepares plural bitmap data in advance, and changes the images to be displayed and/or displays the images at different enlargement magnifications based on the appropriate bitmap data. (See Column 5, Line 18 to Column 8, Line 24 of Fuji).

Further, to achieve the objection of point c) from above, Fuji discloses a method of changing display color of the bitmap data (See Column 9, Line 38 to Column 10, Line 5 of Fuji). The reason for changing the display color is to achieve a more user friendly display (See Column 4, Lines 1 to 16) . To achieve color conversion, Fuji discloses a color table memory 61 and the converter 62 (See Column 9, Line 38 to Column 10, Line 15 of Fuji). During a color conversion process, a color signal is converted by referring to the color table corresponding to

selected memory information transferred from the display data reading unit 4 to change the display color. Particularly, in a case where a pixel value is P1, color data C11 of R11, G11, B11 is read when color table 611 is read. When the color table 612 is selected by the converter 62, the bitmap data of the pixel value P1 is converted based on color data C21 of R21, G21, B21. (See Column 9, Lines 55 to 64 of Fuji)

Although Fuji fails to disclose associating enlargement/reduction and color conversion with each other, Fuji does show an enlargement bitmap data color table, an x enlargement bitmap data color table, a y enlargement bitmap data color table and an xy reduction bitmap data color table, and further shows that an input pixel value is converted into RGB values by the table and the converted values are output. (See Figs. 5 and 15 of Fuji). However, these tables are merely part of the mechanism for converting pixel values into the RGB values preset corresponding to specific pixel values. For example, if the density value of a pixel is N, this pixel value is converted through the relevant conversion process into RGB values of R = N1, G = N2, B = N3. In brief, this process is a color adding process with respect to a specific pixel, for example, a process for replacing specific-density black image with a red image. This is apparent from the disclosure of "bit map data with a pixel value of P1 is converted to a color data C21 of R21, G21, B21 its shown in Fig. 15" (See Column 9, Lines 55 to 64 of Fuji). Throughout the color conversion process of Fuji, the density value of the color converted pixels is not addressed.

However, in the present invention, an input density value of input image data is subjected to density correction by referring to a density correction table selected according to an enlargement/reduction magnification, whereby an output density value of the image data is

obtained. This is not the same as replacing a specific pixel value with RGB values as in the disclosures of Fuji as the output density of the entire image data is affected.

Moreover, the present invention provides a mechanism for solving the problem that the edge of an image becomes vague and halftone is inappropriately reproduced during an enlargement/reduction operation. In contrast, a system built in accordance with the disclosures of Fuji would fail to address an inappropriate introduction of halftone as Fuji dealt with color conversions and not density conversion.

In light of foregoing remarks and the deficiencies of the applied art, Applicant submits that independent Claim 21 is condition for allowance and respectfully requests same.

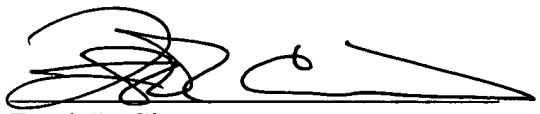
Independent Claim 31 is directed to an image conversion device substantially in accordance with independent Claim 22. Applicant submits that the discussion from above in regard to Claim 22 applies equally to Claim 31. Independent Claims 38 and 47 are directed to methods substantially in accordance with Claims 22 and 31 respectively. Applicant submits that the discussion from above in regard to Claim 22 applies equally to Claims 38 and 47. Accordingly, Applicant believes that independent Claims 31, 38 and 47 are in condition for allowance and respectfully requests same.

The other pending claims in this application are each dependent from the independent claims discussed above and are therefore believed allowable for the same reasons. However, as each dependent claim is also deemed to define an additional aspect of the invention, individual consideration of each dependent claim on its own merits is respectfully requested.

In view of the foregoing remarks, Applicant submits that the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicant's undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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